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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,492	09/28/2001	Ali Cherchali	2000-0219	5290

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EXAMINER
SOL, ANTHONY M

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/966,492	CHERCHALI ET AL.
	Examiner	Art Unit	
	Anthony Sol	2662	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-14 and 16-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-14 and 16-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed 7/18/2005 is acknowledged.

- Claims 1, 8, 10, 12 and 17 have been amended.

- Claims 6 and 15 have been canceled.

- Claims 1-5, 7-14, and 16-18 remain pending.

Claim Objections

1.   Claims 4 and 8 are objected to because of the following informalities:

- For claim 4, line 3, it is believed that "OR-303" should state –GR-303--.

- For claim 8, line 2, it is believed that "at least one feature includes at least

    of" should state –at least one feature includes at least one of--.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-5, 7, 9-14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Pub. No. US 2002/0064152 A1 ("Lemley") in view of Pub. No. US

2003/0048772 A1 ("Blum")

Regarding claims 1 and 10,

Lemley shows in Fig. 4 a packet voice gateway (PVG) used in a conversion of

VoIP signals in DOCSIS HFC networks to circuit switched telephony signals. The figure

also shows non-voice data packet being separated from the VoIP call by the CMTS/ER

and being routed to the IP data network. Although Lemley discloses that PVG is

located on the line side of the network (second network), it is within the capability of one

of ordinary skill in the art to place the PVG or any equivalent translator in the HFC

network, as long as placement of the translator in the HFC network, as opposed to the

second network, does not solve any technical problem as claimed (pg. 2, para. 16, lines

9-13, para. 17, pg. 6-9; claim 1 - lines receiving in a first network a packet-based VoIP

call, wherein the first network is a Hybrid-Fiber Coax network; claim 10 – receiving in a

first network a packet-based VoIP call and non-voice data packet, wherein the first

network is a Hybrid-Fiber Coax network; claim 10 –separating the non-voice packets

from the VoIP call; routing the non-voice packets to a data network).

Lemley discloses that the primary difference between a DOCSIS access system

and a circuit switched access system is that the DOCSIS system transport services in

the form of IP packets, where the circuit switched access system transport services in

the form of traditional Time Division Multiplex (TDM) links (pg. 1, para. 9-14; claims 1,

10 - translating, in the first network, the VoIP call into a Time-Division Multiplexed (TDM)

call compatible with a second network having the capability of processing TDM calls).

Lemley discloses converting VoIP local telephone service signaling to lines side

local switch signaling (pg. 2, para. 19, lines 12-18; claims 1, 10 - mapping IP signaling

information developed in the first network into a format suitable for processing by the second network).

Lemley shows in Fig. 4 by way of a an arrow a circuit switched (TDMA) voice call being routed to the second network and processing TDM call in the second network as discussed above and routing the call out of the switch to its intended destination (claim 1, 10 – routing the TDM call to the second network; processing the TDM call in the second network to perform processing thereon; and routing the TDM call to its intended destination.

Lemley does not disclose performing required signal processing protocols in the first network to allow the VoIP call to interact with the first network as if the first network was performing switch-based processing functions and providing at least one feature for the call.

Blum discloses that an architecture as depicted in Fig. 3 whereby the VoIP call is signal processed by the IPDT's signaling converter 310 and voice converter 330 to be further routed and further processed by the LDS (pg. 1, para. 2, lines 8-15; claims 1, 10 – performing required signal processing protocols in the first network to allow the VoIP call to interact with the first network as if the first network was performing switch-based processing functions).

Blum further discloses that the system of Fig. 2 must preserve timing in order for the receiving telephone to display the caller ID (pg. 1, para. 6, lines 6-8; claims 1, 10 – providing at least one feature for the call).

It would have been prima facie obvious to one of ordinary skill in the art at the

time of the invention was made to modify the VoIP system of Lemley to include in the

architecture the signaling and voice converters and caller ID feature of Blum so that

they can perform required signal processing protocols in order to bridge service

between a circuit switched based access network and a packet based access network

such as an HFC access network (Lemley, pg. 2, para. 16, lines 2-6). One skilled in the

art would have been motivated to combine Lemley with Blum (collectively "Lemley-

Blum") to generate the claimed invention with a reasonable expectation of success.

4.   Regarding claims 2 and 11,

       Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

       Lemley-Blum discloses in Fig. 3 of Blum, the IPDT 200 is capable of separating

and translating both call signaling packets and voice packets to their appropriate

counterparts on the LDS (Blum, pg. 2, paragraphs 22, 23; claims 2, 11 – the translating

step includes translating the VoIP call into a bearer portion and signaling portion).

5.   Regarding claim 3,

       Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

       Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

Lemley-Blum discloses a method for interfacing a GR303-based interface to a

VoIP enabled network and that GR303 protocol contain signaling such as off hook, ring,

connection, disconnection, etc. (Pg. 1, paragraphs 4, 8; claim 3 – IP signal is mapped to

GR-303 format to include performance as well as functional call aspects to allow full-

featured processing by the second network).

6.   Regarding claim 4,

Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

Lemley-Blum discloses NCS protocol containing signaling such as off-hook. It is

inherent in the reference that on-hook line status is included (Blum, pg. 1, paragraph 4;

claim 4 – the IP signaling information includes on-hook and off-hook status).

Referring to Fig. 4, Blum shows that the GR303 includes ABCD signaling (Pg. 3,

paragraph 29; claim 4 - GR-303 includes ABCD signaling bits). Figs. 5A and 5B show

an off-hook event and for converting an RTP-based (IP) signaling into an ABCD

signaling (Blum, pg. 3, paragraphs. 32, 33; claim 4 – the line status in the IP signaling is

mapped to an equivalent line status in the ABCD signaling bits).

7.   Regarding claim 5,

Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

Lemley-Blum discloses a method that covers all the limitations of the parent claim. Referring to Fig. 4, Blum shows that LDS sends a ring signal 454 to the $IPDT_B$ using GR303 ABCD signaling. The ABCD-based ring signal is received at the $IPDT_B$, which converts (maps) the ring signal to a signal in RTP (IP signaling) (Blum, pg. 3, paragraph 29; claim 5 – GR-303 includes ABCD signaling, power ringing indication received via the ABCD signaling bits is mapped to an equivalent power ringing indication in the IP signaling information).

8.   Regarding claims 7 and 16,

Lemley-Blum discloses a method that covers all the limitations of the parent claim.

Lemley-Blum discloses in Fig. 4 of Lemley that the second network is the local telephone switch (PSTN)(claims 7, 16 – the second network is a public switched telephone network).

9.   Regarding claims 9 and 18,

Lemley-Blum discloses a method that covers all the limitations of the parent claim.

Referring to Fig. 4, Blum shows the routing steps for a VoIP call from the first network, Ta, to the second network (LDS), and then returning to the first network to T_b. (claims 9, 18 – translating the call back to a VoIP call if the destination lies in the first network).

10.   Regarding claim 12,

Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

Referring to Fig. 4, Blum shows that LDS sends a ring signal 454 to the IPDT$_B$

using GR303 ABCD signaling. The ABCD-based ring signal is received at the IPDT$_B$,

which converts (maps) the ring signal to a signal in RTP (IP signaling)

(Blum, pg. 3, paragraph 29; claim 12 – the IP signaling information includes a power

ringing indication, and the GR-303 format that includes the ABCD signaling bits,

wherein the power ringing indication received via the ABCD signaling bits is mapped to

an equivalent power ringing indication in the IP signaling information).

11.   Regarding claim 13,

Lemley-Blum discloses a method that covers all the limitations of the parent

claim.

Lemley-Blum discloses NCS protocol containing signaling such as off-hook. It is

inherent in the reference that on-hook line status is included (Blum, pg. 1, paragraph 4;

claim 13 – the IP signaling information includes on-hook and off-hook status).

Referring to Fig. 4, Blum shows that the GR303 includes ABCD signaling (Blum,

pg. 3, paragraph 29; claim 13 - GR-303 includes ABCD signaling bits). Figs. 5A and 5B

show an off-hook event and for converting an RTP-based (IP) signaling into an ABCD

signaling (Blum, pg. 3, paragraphs 32, 33; claim 13 – the line status in the IP signaling

is mapped to an equivalent line status in the ABCD signaling bits).

12.   Regarding claim 14,

Lemley-Blum discloses a method that covers all the limitations of the parent claim.

Lemley-Blum discloses a method for interfacing a GR303-based interface to a VoIP enabled network and that GR303 protocol contain signaling such as off hook, ring, connection, disconnection, etc. (Blum, pg. 1, paragraphs 4, 8; claim 14 – IP signal is mapped to GR-303 format to include performance as well as functional call aspects to allow full-featured processing by the second network).

13.   Claims 8 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lemley in view of Blum, and in further view of Admitted Prior Art.

Lemley-Blum discloses a method that covers all the limitations of the parent claim.

Lemley-Blum does not disclose that the second network features include CLASS, custom calling, and Centrex features.

The Applicants have admitted that the CLASS feature is a service of Telcordia, Inc. (applicants' specification, pps. 5-6, para. 26; claims 8,17 – at least one feature includes at least one of: a CLASS feature, custom calling feature, or a Centrex feature).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the Lemley-Blum's network, the CLASS feature as admitted by the Applicants as prior art so that a full suite of VoIP capabilities can be offered to the VoIP customers (Blum, pg. 1, para. 6-7).

Response to Arguments

14.   Applicant's arguments with respect to claims 1-18 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anthony Sol whose telephone number is (571) 272-

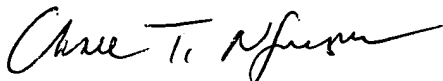5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Sol
Examiner
Art Unit 2662
1/10/2006

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